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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,717	08/09/2001	Richard Fischbeck	00-106	6856

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EXAMINER	
A, PHI DIEU TRAN	

ART UNIT	PAPER NUMBER
3637	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/928,717	FISCHBECK, RICHARD	
	Examiner	Art Unit	
	Phi D A	3637	MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *32-50* is/are pending in the application.

4a) Of the above claim(s) *39-41 and 48-50* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *32-38 and 42-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Election/Restrictions

1. Applicant's election without traverse of specie I to figures 4-5 in the reply filed on 6/22/04 is acknowledged. However, the specie of figures 4-5 reads on claims 32-38, and 42-47 only, not 32-47.

2. Claims 39-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected specie II to figure 6 and specie III to figure 7, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/22/04.

3. Claims 48-50 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention to the method of constructing a structure, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/22/04.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 32-36, 42-44, 46-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Chamberlain (4270320).

Chamberlain shows a geodesic structure comprising a plurality of conical elements (figure 3), each conical element of the plurality of conical elements being defined by a cone wall and a vertex (located at 66), the plurality of conical elements being arranged to form a shell, the

plurality of conical elements being arranged such that a distance and a direction of displacement between any two vertexes of adjacent placed conical elements being infinitely variable between a minimum limit and a maximum limit, the conical element is a circular cone, where the cone tapers toward the vertex from a wide end toward a narrow end, the conical element having an element length defined by a length of the cone wall from the wide end to the narrow end, the conical elements are placed in an overlapping arrangement so as to form said shell, the conical elements are arranged such that the narrow end of the circular cone points outward from the shell and a portion of the cone wall of a first conical element (part denoted by number 42, figure 1) overlaps a portion of the cone wall of at least tow other conical elements (44 left and right of part 42, figure 1) so as to form the shell, the portion of the cone wall of the first conical element overlaps a portion of the cone wall of at least three other conical elements so as to form the shell having a closed surface, the overlapping arrangement including a first conical element that overlaps with at least a second conical element (44 left, figure 1), a third conical element (44 right, figure 1), a fourth element (36 bottom, figure 1), a first amount of overlap between the first conical element and the second conical element forms a first strut distance and direction between the vertexes of the first conical element and the second conical element, a second amount of overlap between the first conical element and the third conical elements forms a second strut distance and direction between the vertexes of the first conical element and third conical element, a third amount of overlap between the first conical element and the fourth conical element forms a third strut distance and direction between the vertexes of the first conical element and said fourth conical element, the first strut distance and direction is any distance and direction between the minimum and said maximum limits, the second strut distance and direction

is any distance and direction between said minimum and said maximum limits, the third strut distance is any distance and direction between the minimum and said maximum limits, an opening (94) is formed is the shelled to provide means to access an inner space of the shell, the conical element having an angular deficit Alpha that defines an amount of taper of the cone wall between the wide end and the narrow end, the angular deficit Alpha of the conical element varies in magnitude from the angular deficit Alpha of an adjacent conical element (the angular difference results per the difference between the pentagonal vs. hexagonal), the plurality of conical elements including two groups of conical elements, each group having different magnitude of said angular deficit Alpha, the conical elements of the two groups are arranged in an alternating pattern (figure 1 shows the alternating pattern), a skin (102, figure 7) placed over the shell, the conical element being constructed of sheet material from a group of material consisting of composite material and polymeric material (col 3 lines 47-55), fastening means including threaded fasteners (bolts 58, col 6 line 34) for attaching the plurality of conical elements to one another.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlain (4270320).

Chamberlain shows all the claimed limitations except for the maximum limit being slightly less than a sum of said element lengths of any two adjacent conical elements.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chamberlain's structure to show the maximum limit being slightly less than a sum of said element lengths of any two adjacent conical elements because it would have been an obvious matter of design choice to show the maximum limit being slightly less than a sum of the lengths of two adjacent elements since such a modification would have involved a mere change in the size of a component, a change in size is generally recognized as being within the level of ordinary skill in the art, In re Rose, 105 USPQ 237 (CCPQ 1955).

8. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlain (4270320).

Chamberlain shows all the claimed limitations except for the minimum limit is slightly greater than one-half of a sum of the element length of any two adjacent conical elements.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chamberlain's structure to show the minimum limit is slightly greater than one-half of a sum of the element length of any two adjacent conical elements because it would have been an obvious matter of design choice to show the minimum limit is slightly greater than one-half of a sum of the element length of any two adjacent conical elements since such a modification would have involved a mere change in the size of a component, a change in size is generally recognized as being within the level of ordinary skill in the art, In re Rose, 105 USPQ 237 (CCPQ 1955).

9. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlain (4270320) in view of Fuller (2682235).

Chamberlain shows all the claimed limitations except for the conical elements being arranged with said narrow end of some of the conical element facing inward and with said narrow end of other ones of the conical elements facing outward.

Fuller (figures 11-12) shows elements being arranged with narrow end of some of the conical elements facing inward (figure 11) and with the narrow end of other ones of the conical elements facing outward (figure 12) to form a spherical structure.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chamberlain's structure to show the conical elements being arranged with said narrow end of some of the conical element facing inward and with said narrow end of other ones of the conical elements facing outward as taught by Fuller because it enables the formation of a domical structure with a broader base with the same given height, and the varying contour of the elements would also increase the aesthetic appearance of the domical structure.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art shows different geodesic structures.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 703-306-9136. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 703-308-2486. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phi Dieu Tran A

9/7/04